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**US2003017559 / 2003-101400**

**2/2**

Date: Dec 11, 2003

Recipient: IB



WO 03/101400

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Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu  
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Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu  
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 Ser Arg Ser Leu His Gly Cys Tyr Leu Glu Glu Leu His Val Leu Pro  
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 Asp Pro Tyr Cys Gly Trp Asp Gly Lys Gln Gln Arg Cys Ser Thr Leu  
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 Pro Val Arg Asn Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro



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Cys Arg Ala Arg Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu 725 730 735		
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Pro Arg His Gly Gly Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg 785 790 795 800		
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Val Glu Phe Lys Thr Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg 850 855 860		
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Ala Arg Gln Glu Gln Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala 885 890 895		
Asp Pro His Gly Leu Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr 900 905 910		
Cys Pro Ala Asp Gly Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu 915 920 925		
Val Leu Leu Arg Ser Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly 930 935 940		
Trp Ala Ala Trp Gly Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu 945 950 955 960		
Gly Phe Arg Val Arg Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn 965 970 975		
Gly Gly Leu Pro Cys Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn 980 985 990		
Pro Gln Ala Cys Pro Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp 995 1000 1005		
Ser Pro Cys Ser Ala Ser Cys Gly Gly Gly His Tyr Gln Arg Thr 1010 1015 1020		

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Val	Asn	Ser	Ile	Ala	Ala	Ser	Ala	Val	Cys	Ala	Phe	Asn	Leu	Ser	Ala
				325					330					335	
Ile	Ser	Gln	Ala	Phe	Asn	Gly	Pro	Phe	Arg	Tyr	Gln	Glu	Asn	Pro	Arg
			340					345					350		
Ala	Ala	Trp	Leu	Pro	Ile	Ala	Asn	Pro	Ile	Pro	Asn	Phe	Gln	Cys	Gly
		355					360					365			
Thr	Leu	Pro	Glu	Thr	Gly	Pro	Asn	Glu	Asn	Leu	Thr	Glu	Arg	Ser	Leu
	370					375					380				
Gln	Asp	Ala	Gln	Arg	Leu	Phe	Leu	Met	Ser	Glu	Ala	Val	Gln	Pro	Val
385					390					395					400
Thr	Pro	Glu	Pro	Cys	Val	Thr	Gln	Asp	Ser	Val	Arg	Phe	Ser	His	Leu
				405					410					415	
Val	Val	Asp	Leu	Val	Gln	Ala	Lys	Asp	Thr	Leu	Tyr	His	Val	Leu	Tyr
			420					425					430		
Ile	Gly	Thr	Glu	Ser	Gly	Thr	Ile	Leu	Lys	Ala	Leu	Ser	Thr	Ala	Ser
		435					440					445			
Arg	Ser	Leu	His	Gly	Cys	Tyr	Leu	Glu	Glu	Leu	His	Val	Leu	Pro	Pro
	450					455					460				
Gly	Arg	Arg	Glu	Pro	Leu	Arg	Ser	Leu	Arg	Ile	Leu	His	Ser	Ala	Arg
465					470					475					480
Ala	Leu	Phe	Val	Gly	Leu	Arg	Asp	Gly	Val	Leu	Arg	Val	Pro	Leu	Glu
				485					490					495	
Arg	Cys	Ala	Ala	Tyr	Arg	Ser	Gln	Gly	Ala	Cys	Leu	Gly	Ala	Arg	Asp
			500					505					510		
Pro	Tyr	Cys	Gly	Trp	Asp	Gly	Lys	Gln	Gln	Arg	Cys	Ser	Thr	Leu	Glu
		515					520					525			
Asp	Ser	Ser	Asn	Met	Ser	Leu	Trp	Thr	Gln	Asn	Ile	Thr	Ala	Cys	Pro
	530					535					540				

Val	Arg	Asn	Val	Thr	Arg	Asp	Gly	Gly	Phe	Gly	Pro	Trp	Ser	Pro	Trp	545	550	555	560
Gln	Pro	Cys	Glu	His	Leu	Asp	Gly	Asp	Asn	Ser	Gly	Ser	Cys	Leu	Cys	565	570		575
Arg	Ala	Arg	Ser	Cys	Asp	Ser	Pro	Arg	Pro	Arg	Cys	Gly	Gly	Leu	Asp	580	585		590
Cys	Leu	Gly	Pro	Ala	Ile	His	Ile	Ala	Asn	Cys	Ser	Arg	Asn	Gly	Gly	595	600	605	
Arg	Gly	Pro	Arg	Gly	Ala	Ser	Trp	Ala	Ala	Val	Gln	Ala	Arg	Pro	Val	610	615	620	
Ala	Ser	Gly	Phe	Gln	Val	Arg	Gln	Arg	Ser	Cys	Ser	Asn	Pro	Ala	Pro	625	630	635	640
Arg	His	Gly	Gly	Arg	Ile	Cys	Val	Gly	Lys	Ser	Arg	Glu	Glu	Arg	Phe	645	650		655
Cys	Asn	Glu	Asn	Thr	Pro	Cys	Pro	Val	Pro	Ile	Phe	Trp	Ala	Ser	Trp	660	665		670
Gly	Ser	Trp	Ser	Lys	Cys	Ser	Ser	Asn	Cys	Gly	Gly	Gly	Met	Gln	Ser	675	680		685
Arg	Arg	Arg	Ala	Cys	Glu	Asn	Gly	Asn	Ser	Cys	Leu	Gly	Cys	Gly	Val	690	695	700	
Glu	Phe	Lys	Thr	Cys	Asn	Pro	Glu	Gly	Cys	Pro	Glu	Val	Arg	Arg	Asn	705	710	715	720
Thr	Pro	Trp	Thr	Pro	Trp	Leu	Pro	Val	Asn	Val	Thr	Gln	Gly	Gly	Ala	725	730		735
Arg	Gln	Glu	Gln	Arg	Phe	Arg	Phe	Thr	Cys	Arg	Ala	Pro	Leu	Ala	Asp	740	745		750
Pro	His	Gly	Leu	Gln	Phe	Gly	Arg	Arg	Arg	Thr	Glu	Thr	Arg	Thr	Cys	755	760	765	
Pro	Ala	Asp	Gly	Ser	Gly	Ser	Cys	Asp	Thr	Asp	Ala	Leu	Val	Glu	Val	770	775	780	
Leu	Leu	Arg	Ser	Gly	Ser	Thr	Ser	Pro	His	Thr	Val	Ser	Gly	Gly	Trp	785	790	795	800
Ala	Ala	Trp	Gly	Pro	Trp	Ser	Ser	Cys	Ser	Arg	Asp	Cys	Glu	Leu	Gly	805	810		815
Phe	Arg	Val	Arg	Lys	Arg	Thr	Cys	Thr	Asn	Pro	Glu	Pro	Arg	Asn	Gly	820	825		830
Gly	Leu	Pro	Cys	Val	Gly	Asp	Ala	Ala	Glu	Tyr	Gln	Asp	Cys	Asn	Pro	835	840	845	
Gln	Ala	Cys	Pro	Val	Arg	Gly	Ala	Trp	Ser	Cys	Trp	Thr	Ser	Trp	Ser	850	855	860	

Pro Cys Ser Ala Ser Cys Gly Gly Gly His Tyr Gln Arg Thr Arg Ser  
 865 870 875 880  
 Cys Thr Ser Pro Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu  
 885 890 895  
 His Thr Glu Glu Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp  
 900 905 910  
 Ser Pro Trp Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser  
 915 920 925  
 Arg Ser Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala  
 930 935 940  
 Gly Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val  
 945 950 955 960  
 Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly Phe  
 965 970 975  
 Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu Gly Ser  
 980 985 990  
 Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His Cys Gln Arg  
 995 1000 1005  
 Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr Pro Asn His  
 1010 1015 1020  
 Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu Lys Tyr Thr  
 1025 1030 1035  
 Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu Ile Pro Asp  
 1040 1045 1050  
 Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn Val Tyr Thr  
 1055 1060 1065  
 Thr Thr Tyr Tyr Pro Ser Pro Leu Asn Lys His Ser Phe Arg Pro  
 1070 1075 1080  
 Glu Ala Ser Pro Gly Gln Arg Cys Phe Pro Asn Ser  
 1085 1090 1095

<210> 22  
 <211> 1248  
 <212> PRT  
 <213> Homo sapiens

<400> 22  
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 20 25 30  
 Cys Thr Arg Leu Trp Glu Pro Ala Trp Val Arg Val Ala Leu Gly Pro  
 35 40 45

Ala Arg Ala Val Val Gly Ala Ser Gly Leu Gln Arg Arg Trp Gly Pro  
 50 55 60  
 Gly Thr Gln Ala Trp Arg Arg Arg Arg Thr Ser Glu Ala Glu Gly Arg  
 65 70 75 80  
 Arg Asp Arg Val Ser Gly Ser Ser Trp Cys Leu Ala Cys Val Ser Trp  
 85 90 95  
 Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His Leu Val Pro  
 100 105 110  
 Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly Trp Thr Val  
 115 120 125  
 Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro Cys Leu Pro  
 130 135 140  
 Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu Ala Gly Pro  
 145 150 155 160  
 Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu Val Ser His  
 165 170 175  
 Leu Ser Ser Ser Gln Asp Val Ser Ser Glu Pro Ser Ser Glu Gln Gln  
 180 185 190  
 Leu Cys Ala Leu Ser Lys His Pro Thr Val Ala Phe Glu Asp Leu Gln  
 195 200 205  
 Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp Phe Ser Gln  
 210 215 220  
 Leu Ala Leu Asp Pro Ser Gly Asn Gln Leu Ile Val Gly Ala Arg Asn  
 225 230 235 240  
 Tyr Leu Phe Arg Leu Ser Leu Ala Asn Val Ser Leu Leu Gln Ala Thr  
 245 250 255  
 Glu Trp Ala Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln Ser Lys Gly  
 260 265 270  
 Lys Thr Glu Glu Glu Cys Gln Asn Tyr Val Arg Val Leu Ile Val Ala  
 275 280 285  
 Gly Arg Lys Val Phe Met Cys Gly Thr Asn Ala Phe Ser Pro Met Cys  
 290 295 300  
 Thr Ser Arg Gln Val Gly Asn Leu Ser Arg Thr Thr Glu Lys Ile Asn  
 305 310 315 320  
 Gly Val Ala Arg Cys Pro Tyr Asp Pro Arg His Asn Ser Thr Ala Val  
 325 330 335  
 Ile Ser Ser Gln Gly Glu Leu Tyr Ala Ala Thr Val Ile Asp Phe Ser  
 340 345 350  
 Gly Arg Asp Pro Ala Ile Tyr Arg Ser Leu Gly Ser Gly Pro Pro Leu  
 355 360 365  
 Arg Thr Ala Gln Tyr Asn Ser Lys Trp Leu Asn Glu Pro Asn Phe Val

370	375	380
Ala Ala Tyr Asp Ile Gly Leu Phe Ala Tyr Phe Phe Leu Arg Glu Asn 385 390 395 400		
Ala Val Glu His Asp Cys Gly Arg Thr Val Tyr Ser Arg Val Ala Arg 405 410 415		
Val Cys Lys Asn Asp Val Gly Gly Arg Phe Leu Leu Glu Asp Thr Trp 420 425 430		
Thr Thr Phe Met Lys Ala Arg Leu Asn Cys Ser Arg Pro Gly Glu Val 435 440 445		
Pro Phe Tyr Tyr Asn Glu Leu Gln Ser Ala Phe His Leu Pro Glu Gln 450 455 460		
Asp Leu Ile Tyr Gly Val Phe Thr Thr Asn Val Asn Ser Ile Ala Ala 465 470 475 480		
Ser Ala Val Cys Ala Phe Asn Leu Ser Ala Ile Ser Gln Ala Phe Asn 485 490 495		
Gly Pro Phe Arg Tyr Gln Glu Asn Pro Arg Ala Ala Trp Leu Pro Ile 500 505 510		
Ala Asn Pro Ile Pro Asn Phe Gln Cys Gly Thr Leu Pro Glu Thr Gly 515 520 525		
Pro Asn Glu Asn Leu Thr Glu Arg Ser Leu Gln Asp Ala Gln Arg Leu 530 535 540		
Phe Leu Met Ser Glu Ala Val Gln Pro Val Thr Pro Glu Pro Cys Val 545 550 555 560		
Thr Gln Asp Ser Val Arg Phe Ser His Leu Val Val Asp Leu Val Gln 565 570 575		
Ala Lys Asp Thr Leu Tyr His Val Leu Tyr Ile Gly Thr Glu Ser Gly 580 585 590		
Thr Ile Leu Lys Ala Leu Ser Thr Ala Ser Arg Ser Leu His Gly Cys 595 600 605		
Tyr Leu Glu Glu Leu His Val Leu Pro Pro Gly Arg Arg Glu Pro Leu 610 615 620		
Arg Ser Leu Arg Ile Leu His Ser Ala Arg Ala Leu Phe Val Gly Leu 625 630 635 640		
Arg Asp Gly Val Leu Arg Val Pro Leu Glu Arg Cys Ala Ala Tyr Arg 645 650 655		
Ser Gln Gly Ala Cys Leu Gly Ala Arg Asp Pro Tyr Cys Gly Trp Asp 660 665 670		
Gly Lys Gln Gln Arg Cys Ser Thr Leu Glu Asp Ser Ser Asn Met Ser 675 680 685		
Leu Trp Thr Gln Asn Ile Thr Ala Cys Pro Val Arg Asn Val Thr Arg 690 695 700		



Asp Gly Gly Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys Glu His Leu  
 705 710 715 720  
 Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg Ser Cys Asp  
 725 730 735  
 Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly Pro Ala Ile  
 740 745 750  
 His Ile Ala Asn Cys Ser Arg Asn Gly Ala Val Asp Pro Val Val Ile  
 755 760 765  
 Val Gly Arg Cys Ala Ala Thr Ser Cys Gly Ile Gly Phe Gln Val Arg  
 770 775 780  
 Gln Arg Ser Cys Ser Asn Pro Ala Pro Arg His Gly Gly Arg Ile Cys  
 785 790 795 800  
 Val Gly Lys Ser Arg Glu Glu Arg Phe Cys Asn Glu Asn Thr Pro Cys  
 805 810 815  
 Pro Val Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser Lys Cys Ser  
 820 825 830  
 Ser Asn Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala Cys Glu Asn  
 835 840 845  
 Gly Asn Ser Cys Leu Gly Cys Gly Val Glu Phe Lys Thr Cys Asn Pro  
 850 855 860  
 Glu Gly Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr Pro Trp Leu  
 865 870 875 880  
 Pro Val Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln Arg Phe Arg  
 885 890 895  
 Phe Thr Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu Gln Phe Gly  
 900 905 910  
 Arg Arg Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly Ser Gly Ser  
 915 920 925  
 Cys Asp Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser Gly Ser Thr  
 930 935 940  
 Ser Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly Pro Trp Ser  
 945 950 955 960  
 Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg Lys Arg Thr  
 965 970 975  
 Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys Val Gly Asp  
 980 985 990  
 Ala Ala Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys Pro Val Arg Gly  
 995 1000 1005  
 Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala Ser Cys  
 1010 1015 1020

Gly Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro Ala  
 1025 1030 1035  
 Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu  
 1040 1045 1050  
 Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp  
 1055 1060 1065  
 Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser Arg Ser  
 1070 1075 1080  
 Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala Gly  
 1085 1090 1095  
 Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val  
 1100 1105 1110  
 Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly  
 1115 1120 1125  
 Phe Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu  
 1130 1135 1140  
 Gly Ser Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His  
 1145 1150 1155  
 Cys Gln Arg Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr  
 1160 1165 1170  
 Pro Asn His Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu  
 1175 1180 1185  
 Lys Tyr Thr Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu  
 1190 1195 1200  
 Ile Pro Asp Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn  
 1205 1210 1215  
 Val Tyr Thr Thr Thr Tyr Tyr Pro Ser Pro Leu Asn Lys His Ser  
 1220 1225 1230  
 Phe Arg Pro Glu Ala Ser Pro Gly Gln Arg Cys Phe Pro Asn Ser  
 1235 1240 1245

<210> 23  
 <211> 1150  
 <212> PRT  
 <213> Homo sapiens

<400> 23  
 Ala Ala Ala Pro Phe Pro Asp Arg Pro Pro Ala His Leu Val Ser Ser  
 1 5 10 15  
 Arg Arg Ser Ala Pro Pro Gly Ser Arg Glu Pro Arg Gly Thr Gly His  
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 Leu His Pro Pro Leu Gly Gly Leu Leu Pro Cys Leu Pro Pro Gly Ala  
 35 40 45

Arg Thr Ala Glu Gly Pro Ile Met Val Leu Ala Gly Pro Leu Ala Val  
 50 55 60  
 Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu Val Ser His Leu Ser Ser  
 65 70 75 80  
 Ser Gln Asp Val Ser Ser Glu Pro Ser Ser Glu Gln Gln Leu Cys Ala  
 85 90 95  
 Leu Ser Lys His Pro Thr Val Ala Phe Glu Asp Leu Gln Pro Trp Val  
 100 105 110  
 Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp Phe Ser Gln Leu Ala Leu  
 115 120 125  
 Asp Pro Ser Gly Asn Gln Leu Ile Val Gly Ala Arg Asn Tyr Leu Phe  
 130 135 140  
 Arg Leu Ser Leu Ala Asn Val Ser Leu Leu Gln Ala Thr Glu Trp Ala  
 145 150 155 160  
 Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln Ser Lys Gly Lys Thr Glu  
 165 170 175  
 Glu Glu Cys Gln Asn Tyr Val Arg Val Leu Ile Val Ala Gly Arg Lys  
 180 185 190  
 Val Phe Met Cys Gly Thr Asn Ala Phe Ser Pro Met Cys Thr Ser Arg  
 195 200 205  
 Gln Val Gly Asn Leu Ser Arg Thr Thr Glu Lys Ile Asn Gly Val Ala  
 210 215 220  
 Arg Cys Pro Tyr Asp Pro Arg His Asn Ser Thr Ala Val Ile Ser Ser  
 225 230 235 240  
 Gln Gly Glu Leu Tyr Ala Ala Thr Val Ile Asp Phe Ser Gly Arg Asp  
 245 250 255  
 Pro Ala Ile Tyr Arg Ser Leu Gly Ser Gly Pro Pro Leu Arg Thr Ala  
 260 265 270  
 Gln Tyr Asn Ser Lys Trp Leu Asn Glu Pro Asn Phe Val Ala Ala Tyr  
 275 280 285  
 Asp Ile Gly Leu Phe Ala Tyr Phe Phe Leu Arg Glu Asn Ala Val Glu  
 290 295 300  
 His Asp Cys Gly Arg Thr Val Tyr Ser Arg Val Ala Arg Val Cys Lys  
 305 310 315 320  
 Asn Asp Val Gly Gly Arg Phe Leu Leu Glu Asp Thr Trp Thr Thr Phe  
 325 330 335  
 Met Lys Ala Arg Leu Asn Cys Ser Arg Pro Gly Glu Val Pro Phe Tyr  
 340 345 350  
 Tyr Asn Glu Leu Gln Ser Ala Phe His Leu Pro Glu Gln Asp Leu Ile  
 355 360 365

Tyr Gly Val Phe Thr Thr Asn Val Asn Ser Ile Ala Ala Ser Ala Val  
 370 375 380  
 Cys Ala Phe Asn Leu Ser Ala Ile Ser Gln Ala Phe Asn Gly Pro Phe  
 385 390 395 400  
 Arg Tyr Gln Glu Asn Pro Arg Ala Ala Trp Leu Pro Ile Ala Asn Pro  
 405 410 415  
 Ile Pro Asn Phe Gln Cys Gly Thr Leu Pro Glu Thr Gly Pro Asn Glu  
 420 425 430  
 Asn Leu Thr Glu Arg Ser Leu Gln Asp Ala Gln Arg Leu Phe Leu Met  
 435 440 445  
 Ser Glu Ala Val Gln Pro Val Thr Pro Glu Pro Cys Val Thr Gln Asp  
 450 455 460  
 Ser Val Arg Phe Ser His Leu Val Val Asp Leu Val Gln Ala Lys Asp  
 465 470 475 480  
 Thr Leu Tyr His Val Leu Tyr Ile Gly Thr Glu Ser Gly Thr Ile Leu  
 485 490 495  
 Lys Ala Leu Ser Thr Ala Ser Arg Ser Leu His Gly Cys Tyr Leu Glu  
 500 505 510  
 Glu Leu His Val Leu Pro Pro Gly Arg Arg Glu Pro Leu Arg Ser Leu  
 515 520 525  
 Arg Ile Leu His Ser Ala Arg Ala Leu Phe Val Gly Leu Arg Asp Gly  
 530 535 540  
 Val Leu Arg Val Pro Leu Glu Arg Cys Ala Ala Tyr Arg Ser Gln Gly  
 545 550 555 560  
 Ala Cys Leu Gly Ala Arg Asp Pro Tyr Cys Gly Trp Asp Gly Lys Gln  
 565 570 575  
 Gln Arg Cys Ser Thr Leu Glu Asp Ser Ser Asn Met Ser Leu Trp Thr  
 580 585 590  
 Gln Asn Ile Thr Ala Cys Pro Val Arg Asn Val Thr Arg Asp Gly Gly  
 595 600 605  
 Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys Glu His Leu Asp Gly Asp  
 610 615 620  
 Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg Ser Cys Asp Ser Pro Arg  
 625 630 635 640  
 Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly Pro Ala Ile His Ile Ala  
 645 650 655  
 Asn Cys Ser Arg Asn Gly Ala Val Asp Pro Val Val His Arg Gly Pro  
 660 665 670  
 Leu Cys Ser His Val Leu Trp His Ala Ala Ser Arg Ser Ala Ser Glu  
 675 680 685  
 Val Ala Ala Thr Leu Leu Pro Ala Thr Gly Ala Ala Ser Ala Trp Ala

690	695	700															
Arg Ala Trp Glu Glu	Arg Phe Cys Asn Glu	Asn Thr Pro Cys Pro Val	705	710	715												720
Pro Ile Phe Trp Ala	Ser Trp Gly Ser Trp	Ser Lys Cys Ser Ser Asn		725	730												735
Cys Gly Gly Gly Met	Gln Ser Arg Arg Arg	Ala Cys Glu Asn Gly Asn		740	745												750
Ser Cys Leu Gly Cys	Gly Val Glu Phe Lys	Thr Cys Asn Pro Glu Gly		755	760												
Cys Pro Glu Val Arg	Arg Asn Thr Pro Trp	Thr Pro Trp Leu Pro Val		770	775												
Asn Val Thr Gln Gly	Gly Ala Arg Gln Glu	Gln Arg Phe Arg Phe Thr		785	790												800
Cys Arg Ala Pro Leu	Ala Asp Pro His Gly	Leu Gln Phe Gly Arg Arg		805	810												815
Arg Thr Glu Thr Arg	Thr Cys Pro Ala Asp	Gly Ser Gly Ser Cys Asp		820	825												830
Thr Asp Ala Leu Val	Glu Val Leu Leu Arg	Ser Gly Ser Thr Ser Pro		835	840												
His Thr Val Ser Gly	Gly Trp Ala Ala Trp	Gly Pro Trp Ser Ser Cys		850	855												
Ser Arg Asp Cys Glu	Leu Gly Phe Arg Val	Arg Lys Arg Thr Cys Thr		865	870												880
Asn Pro Glu Pro Arg	Asn Gly Gly Leu Pro	Cys Val Gly Asp Ala Ala		885	890												895
Glu Tyr Gln Asp Cys	Asn Pro Gln Ala Cys	Pro Val Arg Gly Ala Trp		900	905												
Ser Cys Trp Thr Ser	Trp Ser Pro Cys Ser	Ala Ser Cys Gly Gly Gly		915	920												
His Tyr Gln Arg Thr	Arg Ser Cys Thr Ser	Pro Ala Pro Ser Pro Gly		930	935												
Glu Asp Ile Cys Leu	Gly Leu His Thr Glu	Glu Ala Leu Cys Ala Thr		945	950												960
Gln Ala Cys Pro Glu	Gly Trp Ser Pro Trp	Ser Glu Trp Ser Lys Cys		965	970												975
Thr Asp Asp Gly Ala	Gln Ser Arg Ser Arg	His Cys Glu Glu Leu Leu		980	985												990
Pro Gly Ser Ser Ala	Cys Ala Gly Asn Ser	Ser Gln Ser Arg Pro Cys		995	1000												
Pro Tyr Ser Glu Ile	Arg Val Ile Leu Pro	Ala Ser Ser Met Glu		1010	1015												1020

Glu Ala Thr Asp Cys Ala Gly Phe Asn Leu Ile His Leu Val Ala  
 1025 1030 1035  
 Thr Gly Ile Ser Cys Phe Leu Gly Ser Gly Leu Leu Thr Leu Ala  
 1040 1045 1050  
 Val Tyr Leu Ser Cys Gln His Cys Gln Arg Gln Ser Gln Glu Ser  
 1055 1060 1065  
 Thr Leu Val His Pro Ala Thr Pro Asn His Leu His Tyr Lys Gly  
 1070 1075 1080  
 Gly Gly Thr Pro Lys Asn Glu Lys Tyr Thr Pro Met Glu Phe Lys  
 1085 1090 1095  
 Thr Leu Asn Lys Asn Asn Leu Ile Pro Asp Asp Arg Ala Asn Phe  
 1100 1105 1110  
 Tyr Pro Leu Gln Gln Thr Asn Val Tyr Thr Thr Thr Tyr Tyr Pro  
 1115 1120 1125  
 Ser Pro Leu Asn Lys His Ser Phe Arg Pro Glu Ala Ser Pro Gly  
 1130 1135 1140  
 Gln Arg Cys Phe Pro Asn Ser  
 1145 1150

<210> 24  
 <211> 1211  
 <212> PRT  
 <213> Homo sapiens

<400> 24  
 Ala Ala Ala Pro Phe Pro Asp Arg Pro Pro Ala His Leu Val Ser Ser  
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 Arg Arg Ser Ala Pro Pro Gly Ser Arg Glu Pro Arg Gly Thr Gly His  
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 Leu His Pro Pro Leu Gly Val Ser Gly Ser Ser Trp Cys Leu Ala Cys  
 35 40 45  
 Val Ser Trp Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His  
 50 55 60  
 Leu Val Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly  
 65 70 75 80  
 Trp Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro  
 85 90 95  
 Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu  
 100 105 110  
 Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu  
 115 120 125  
 Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser Glu Pro Ser Ser  
 130 135 140

Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr Val Ala Phe Glu  
 145 150 155 160  
 Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp  
 165 170 175  
 Phe Ser Gln Leu Ala Leu Asp Pro Ser Gly Asn Gln Leu Ile Val Gly  
 180 185 190  
 Ala Arg Asn Tyr Leu Phe Arg Leu Ser Leu Ala Asn Val Ser Leu Leu  
 195 200 205  
 Gln Ala Thr Glu Trp Ala Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln  
 210 215 220  
 Ser Lys Gly Lys Thr Glu Glu Glu Cys Gln Asn Tyr Val Arg Val Leu  
 225 230 235 240  
 Ile Val Ala Gly Arg Lys Val Phe Met Cys Gly Thr Asn Ala Phe Ser  
 245 250 255  
 Pro Met Cys Thr Ser Arg Gln Val Gly Asn Leu Ser Arg Thr Thr Glu  
 260 265 270  
 Lys Ile Asn Gly Val Ala Arg Cys Pro Tyr Asp Pro Arg His Asn Ser  
 275 280 285  
 Thr Ala Val Ile Ser Ser Gln Gly Glu Leu Tyr Ala Ala Thr Val Ile  
 290 295 300  
 Asp Phe Ser Gly Arg Asp Pro Ala Ile Tyr Arg Ser Leu Gly Ser Gly  
 305 310 315 320  
 Pro Pro Leu Arg Thr Ala Gln Tyr Asn Ser Lys Trp Leu Asn Glu Pro  
 325 330 335  
 Asn Phe Val Ala Ala Tyr Asp Ile Gly Leu Phe Ala Tyr Phe Phe Leu  
 340 345 350  
 Arg Glu Asn Ala Val Glu His Asp Cys Gly Arg Thr Val Tyr Ser Arg  
 355 360 365  
 Val Ala Arg Val Cys Lys Asn Asp Val Gly Gly Arg Phe Leu Leu Glu  
 370 375 380  
 Asp Thr Trp Thr Thr Phe Met Lys Ala Arg Leu Asn Cys Ser Arg Pro  
 385 390 395 400  
 Gly Glu Val Pro Phe Tyr Tyr Asn Glu Leu Gln Ser Ala Phe His Leu  
 405 410 415  
 Pro Glu Gln Asp Leu Ile Tyr Gly Val Phe Thr Thr Asn Val Asn Ser  
 420 425 430  
 Ile Ala Ala Ser Ala Val Cys Ala Phe Asn Leu Ser Ala Ile Ser Gln  
 435 440 445  
 Ala Phe Asn Gly Pro Phe Arg Tyr Gln Glu Asn Pro Arg Ala Ala Trp  
 450 455 460

Leu Pro Ile Ala Asn Pro Ile Pro Asn Phe Gln Cys Gly Thr Leu Pro  
 465 470 475 480  
 Glu Thr Gly Pro Asn Glu Asn Leu Thr Glu Arg Ser Leu Gln Asp Ala  
 485 490 495  
 Gln Arg Leu Phe Leu Met Ser Glu Ala Val Gln Pro Val Thr Pro Glu  
 500 505 510  
 Pro Cys Val Thr Gln Asp Ser Val Arg Phe Ser His Leu Val Val Asp  
 515 520 525  
 Leu Val Gln Ala Lys Asp Thr Leu Tyr His Val Leu Tyr Ile Gly Thr  
 530 535 540  
 Glu Ser Gly Thr Ile Leu Lys Ala Leu Ser Thr Ala Ser Arg Ser Leu  
 545 550 555 560  
 His Gly Cys Tyr Leu Glu Glu Leu His Val Leu Pro Pro Gly Arg Arg  
 565 570 575  
 Glu Pro Leu Arg Ser Leu Arg Ile Leu His Ser Ala Arg Ala Leu Phe  
 580 585 590  
 Val Gly Leu Arg Asp Gly Val Leu Arg Val Pro Leu Glu Arg Cys Ala  
 595 600 605  
 Ala Tyr Arg Ser Gln Gly Ala Cys Leu Gly Ala Arg Asp Pro Tyr Cys  
 610 615 620  
 Gly Trp Asp Gly Lys Gln Gln Arg Cys Ser Thr Leu Glu Asp Ser Ser  
 625 630 635 640  
 Asn Met Ser Leu Trp Thr Gln Asn Ile Thr Ala Cys Pro Val Arg Asn  
 645 650 655  
 Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys  
 660 665 670  
 Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg  
 675 680 685  
 Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly  
 690 695 700  
 Pro Ala Ile His Ile Ala Asn Cys Ser Arg Asn Gly Ala Val Asp Pro  
 705 710 715 720  
 Val Val Ile Val Gly Arg Cys Ala Ala Thr Ser Cys Gly Ile Gly Phe  
 725 730 735  
 Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala Pro Arg His Gly Gly  
 740 745 750  
 Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg Phe Cys Asn Glu Asn  
 755 760 765  
 Thr Pro Cys Pro Val Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser  
 770 775 780  
 Lys Cys Ser Ser Asn Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala



785	790	795	800
Cys Glu Asn Gly	Asn Ser Cys Leu Gly	Cys Gly Val Glu Phe Lys Thr	
	805	810	815
Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr			
	820	825	830
Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln			
	835	840	845
Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu			
	850	855	860
Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly			
	865	870	875
Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser			
	885	890	895
Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly			
	900	905	910
Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg			
	915	920	925
Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys			
	930	935	940
Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys Pro			
	945	950	955
Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala			
	965	970	975
Ser Cys Gly Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro			
	980	985	990
Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu			
	995	1000	1005
Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp			
	1010	1015	1020
Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser Arg Ser			
	1025	1030	1035
Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala Gly			
	1040	1045	1050
Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val			
	1055	1060	1065
Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly			
	1070	1075	1080
Phe Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu			
	1085	1090	1095
Gly Ser Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His			
	1100	1105	1110

Cys Gln Arg Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr  
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 Pro Asn His Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu  
 1130 1135 1140  
 Lys Tyr Thr Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu  
 1145 1150 1155  
 Ile Pro Asp Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn  
 1160 1165 1170  
 Ala Ser Ala Gly Tyr Pro Pro Leu Pro Gly Ser Leu Tyr Ser Thr  
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 Ala Asp Leu Cys Leu Glu Val Leu  
 1205 1210

<210> 25  
 <211> 1203  
 <212> PRT  
 <213> Homo sapiens

<400> 25

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 35 40 45  
 Val Ser Trp Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His  
 50 55 60  
 Leu Val Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly  
 65 70 75 80  
 Trp Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro  
 85 90 95  
 Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu  
 100 105 110  
 Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu  
 115 120 125  
 Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser Glu Pro Ser Ser  
 130 135 140  
 Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr Val Ala Phe Glu  
 145 150 155 160  
 Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp

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Phe	Ser	Gln	Leu	Ala	Leu	Asp	Pro	Ser	Gly	Asn	Gln	Leu	Ile	Val	Gly				
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Ala	Arg	Asn	Tyr	Leu	Phe	Arg	Leu	Ser	Leu	Ala	Asn	Val	Ser	Leu	Leu				
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Gln	Ala	Thr	Glu	Trp	Ala	Ser	Ser	Glu	Asp	Thr	Arg	Arg	Ser	Cys	Gln				
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Ser	Lys	Gly	Lys	Thr	Glu	Glu	Glu	Cys	Gln	Asn	Tyr	Val	Arg	Val	Leu				
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Ile	Val	Ala	Gly	Arg	Lys	Val	Phe	Met	Cys	Gly	Thr	Asn	Ala	Phe	Ser				
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Pro	Met	Cys	Thr	Ser	Arg	Gln	Val	Gly	Asn	Leu	Ser	Arg	Thr	Thr	Glu				
			260					265					270						
Lys	Ile	Asn	Gly	Val	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Arg	His	Asn	Ser				
		275					280					285							
Thr	Ala	Val	Ile	Ser	Ser	Gln	Gly	Glu	Leu	Tyr	Ala	Ala	Thr	Val	Ile				
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Asp	Phe	Ser	Gly	Arg	Asp	Pro	Ala	Ile	Tyr	Arg	Ser	Leu	Gly	Ser	Gly				
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Pro	Pro	Leu	Arg	Thr	Ala	Gln	Tyr	Asn	Ser	Lys	Trp	Leu	Asn	Glu	Pro				
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Asn	Phe	Val	Ala	Ala	Tyr	Asp	Ile	Gly	Leu	Phe	Ala	Tyr	Phe	Phe	Leu				
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Arg	Glu	Asn	Ala	Val	Glu	His	Asp	Cys	Gly	Arg	Thr	Val	Tyr	Ser	Arg				
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Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	Val	Gly	Gly	Arg	Phe	Leu	Leu	Glu				
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Asp	Thr	Trp	Thr	Thr	Phe	Met	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Arg	Pro				
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Gly	Glu	Val	Pro	Phe	Tyr	Tyr	Asn	Glu	Leu	Gln	Ser	Ala	Phe	His	Leu				
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Pro	Glu	Gln	Asp	Leu	Ile	Tyr	Gly	Val	Phe	Thr	Thr	Asn	Val	Asn	Ser				
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Ile	Ala	Ala	Ser	Ala	Val	Cys	Ala	Phe	Asn	Leu	Ser	Ala	Ile	Ser	Gln				
		435					440					445							
Ala	Phe	Asn	Gly	Pro	Phe	Arg	Tyr	Gln	Glu	Asn	Pro	Arg	Ala	Ala	Trp				
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Leu	Pro	Ile	Ala	Asn	Pro	Ile	Pro	Asn	Phe	Gln	Cys	Gly	Thr	Leu	Pro				
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Glu	Thr	Gly	Pro	Asn	Glu	Asn	Leu	Thr	Glu	Arg	Ser	Leu	Gln	Asp	Ala				
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Gln Arg Leu Phe Leu Met Ser Glu Ala Val Gln Pro Val Thr Pro Glu  
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 Pro Cys Val Thr Gln Asp Ser Val Arg Phe Ser His Leu Val Val Asp  
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 530 535 540  
 Glu Ser Gly Thr Ile Leu Lys Ala Leu Ser Thr Ala Ser Arg Ser Leu  
 545 550 555 560  
 His Gly Cys Tyr Leu Glu Glu Leu His Val Leu Pro Pro Gly Arg Arg  
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 Glu Pro Leu Arg Ser Leu Arg Ile Leu His Ser Ala Arg Ala Leu Phe  
 580 585 590  
 Val Gly Leu Arg Asp Gly Val Leu Arg Val Pro Leu Glu Arg Cys Ala  
 595 600 605  
 Ala Tyr Arg Ser Gln Gly Ala Cys Leu Gly Ala Arg Asp Pro Tyr Cys  
 610 615 620  
 Gly Trp Asp Gly Lys Gln Gln Arg Cys Ser Thr Leu Glu Asp Ser Ser  
 625 630 635 640  
 Asn Met Ser Leu Trp Thr Gln Asn Ile Thr Ala Cys Pro Val Arg Asn  
 645 650 655  
 Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys  
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 Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg  
 675 680 685  
 Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly  
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 Val Val Ile Val Gly Arg Cys Ala Ala Thr Ser Cys Gly Ile Gly Phe  
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 Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala Pro Arg His Gly Gly  
 740 745 750  
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 Thr Pro Cys Pro Val Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser  
 770 775 780  
 Lys Cys Ser Ser Asn Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala  
 785 790 795 800  
 Cys Glu Asn Gly Asn Ser Cys Leu Gly Cys Gly Val Glu Phe Lys Thr  
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Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr  
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 Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln  
 835 840 845  
 Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu  
 850 855 860  
 Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly  
 865 870 875 880  
 Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser  
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 Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly  
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 Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg  
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 Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys  
 930 935 940  
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 945 950 955 960  
 Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala  
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 Ser Cys Gly Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro  
 980 985 990  
 Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu  
 995 1000 1005  
 Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp  
 1010 1015 1020  
 Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser Arg Ser  
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 Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala Gly  
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 Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val  
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 Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly  
 1070 1075 1080  
 Phe Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu  
 1085 1090 1095  
 Gly Ser Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His  
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 Cys Gln Arg Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr  
 1115 1120 1125  
 Pro Asn His Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu

1130                      1135                      1140  
 Lys Tyr Thr Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu  
 1145                      1150                      1155  
 Ile Pro Asp Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn  
 1160                      1165                      1170  
 Val Tyr Thr Thr Thr Tyr Tyr Pro Ser Pro Leu Asn Lys His Ser  
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 1190                      1195                      1200  
  
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 Leu His Pro Pro Leu Gly Val Ser Gly Ser Ser Trp Cys Leu Ala Cys  
                     35                      40                      45  
 Val Ser Trp Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His  
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 Leu Val Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly  
 65                      70                      75                      80  
 Trp Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Arg Lys Pro  
                     85                      90                      95  
 Ser Gly Asp Phe Glu Trp Arg Gln Gly Trp Arg Gly Pro Gly Glu Glu  
                     100                      105                      110  
 Asp Trp Pro Glu Ser Pro Ser Pro Lys Val Leu Met Asp Ser Ala Gly  
                     115                      120                      125  
 Gly Leu Leu Pro Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro  
                     130                      135                      140  
 Ile Met Val Leu Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser  
 145                      150                      155                      160  
 Leu Thr Leu Leu Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser  
                     165                      170                      175  
 Glu Pro Ser Ser Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr  
                     180                      185                      190  
 Val Ala Phe Glu Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro  
                     195                      200                      205  
 Gly Ala Arg Asp Phe Ser Gln Leu Ala Leu Asp Pro Ser Gly Asn Gln

210	215	220
Leu Ile Val Gly Ala Arg Asn Tyr Leu Phe Arg Leu Ser Leu Ala Asn 225 230 235 240		
Val Ser Leu Leu Gln Ala Thr Glu Trp Ala Ser Ser Glu Asp Thr Arg 245 250 255		
Arg Ser Cys Gln Ser Lys Gly Lys Thr Glu Glu Glu Cys Gln Asn Tyr 260 265 270		
Val Arg Val Leu Ile Val Ala Gly Arg Lys Val Phe Met Cys Gly Thr 275 280 285		
Asn Ala Phe Ser Pro Met Cys Thr Ser Arg Gln Val Gly Asn Leu Ser 290 295 300		
Arg Thr Thr Glu Lys Ile Asn Gly Val Ala Arg Cys Pro Tyr Asp Pro 305 310 315 320		
Arg His Asn Ser Thr Ala Val Ile Ser Ser Gln Gly Glu Leu Tyr Ala 325 330 335		
Ala Thr Val Ile Asp Phe Ser Gly Arg Asp Pro Ala Ile Tyr Arg Ser 340 345 350		
Leu Gly Ser Gly Pro Pro Leu Arg Thr Ala Gln Tyr Asn Ser Lys Trp 355 360 365		
Leu Asn Glu Pro Asn Phe Val Ala Ala Tyr Asp Ile Gly Leu Phe Ala 370 375 380		
Tyr Phe Phe Leu Arg Glu Asn Ala Val Glu His Asp Cys Gly Arg Thr 385 390 395 400		
Val Tyr Ser Arg Val Ala Arg Val Cys Lys Asn Asp Val Gly Gly Arg 405 410 415		
Phe Leu Leu Glu Asp Thr Trp Thr Thr Phe Met Lys Ala Arg Leu Asn 420 425 430		
Cys Ser Arg Pro Gly Glu Val Pro Phe Tyr Tyr Asn Glu Leu Gln Ser 435 440 445		
Ala Phe His Leu Pro Glu Gln Asp Leu Ile Tyr Gly Val Phe Thr Thr 450 455 460		
Asn Val Asn Ser Ile Ala Ala Ser Ala Val Cys Ala Phe Asn Leu Ser 465 470 475 480		
Ala Ile Ser Gln Ala Phe Asn Gly Pro Phe Arg Tyr Gln Glu Asn Pro 485 490 495		
Arg Ala Ala Trp Leu Pro Ile Ala Asn Pro Ile Pro Asn Phe Gln Cys 500 505 510		
Gly Thr Leu Pro Glu Thr Gly Pro Asn Glu Asn Leu Thr Glu Arg Ser 515 520 525		
Leu Gln Asp Ala Gln Arg Leu Phe Leu Met Ser Glu Ala Val Gln Pro 530 535 540		

Val Thr Pro Glu Pro Cys Val Thr Gln Asp Ser Val Arg Phe Ser His  
 545 550 555 560  
 Leu Val Val Asp Leu Val Gln Ala Lys Asp Thr Leu Tyr His Val Leu  
 565 570 575  
 Tyr Ile Gly Thr Glu Ser Gly Thr Ile Leu Lys Ala Leu Ser Thr Ala  
 580 585 590  
 Ser Arg Ser Leu His Gly Cys Tyr Leu Glu Glu Leu His Val Leu Pro  
 595 600 605  
 Pro Gly Arg Arg Glu Pro Leu Arg Ser Leu Arg Ile Leu His Ser Ala  
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 Arg Ala Leu Phe Val Gly Leu Arg Asp Gly Val Leu Arg Val Pro Leu  
 625 630 635 640  
 Glu Arg Cys Ala Ala Tyr Arg Ser Gln Gly Ala Cys Leu Gly Ala Arg  
 645 650 655  
 Asp Pro Tyr Cys Gly Trp Asp Gly Lys Gln Gln Arg Cys Ser Thr Leu  
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 675 680 685  
 Pro Val Arg Asn Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro  
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 Trp Gln Pro Cys Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu  
 705 710 715 720  
 Cys Arg Ala Arg Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu  
 725 730 735  
 Asp Cys Leu Gly Pro Ala Ile His Ile Ala Asn Cys Ser Arg Asn Gly  
 740 745 750  
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 Val Ala Ser Gly Phe Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala  
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 Pro Arg His Gly Gly Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg  
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 Ser Arg Arg Arg Ala Cys Glu Asn Gly Asn Ser Cys Leu Gly Cys Gly  
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 Val Glu Phe Lys Thr Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg  
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Asn Thr Pro Trp Thr Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly  
 865 870 875 880  
 Ala Arg Gln Glu Gln Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala  
 885 890 895  
 Asp Pro His Gly Leu Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr  
 900 905 910  
 Cys Pro Ala Asp Gly Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu  
 915 920 925  
 Val Leu Leu Arg Ser Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly  
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 Gly Gly Leu Pro Cys Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn  
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 Pro Gln Ala Cys Pro Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp  
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 Ser Pro Cys Ser Ala Ser Cys Gly Gly Gly His Tyr Gln Arg Thr  
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 1055 1060 1065  
 Asp Gly Ala Gln Ser Arg Ser Arg His Cys Glu Glu Leu Leu Pro  
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 Gly Ser Ser Ala Cys Ala Gly Asn Ser Ser Gln Ser Arg Pro Cys  
 1085 1090 1095  
 Pro Tyr Ser Glu Ile Arg Val Ile Leu Pro Ala Ser Ser Met Glu  
 1100 1105 1110  
 Glu Ala Thr Asp Cys Ala Gly Phe Asn Leu Ile His Leu Val Ala  
 1115 1120 1125  
 Thr Gly Ile Ser Cys Phe Leu Gly Ser Gly Leu Leu Thr Leu Ala  
 1130 1135 1140  
 Val Tyr Leu Ser Cys Gln His Cys Gln Arg Gln Ser Gln Glu Ser  
 1145 1150 1155  
 Thr Leu Val His Pro Ala Thr Pro Asn His Leu His Tyr Lys Gly  
 1160 1165 1170  
 Gly Gly Thr Pro Lys Asn Glu Lys Tyr Thr Pro Met Glu Phe Lys

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Tyr Pro Leu Gln Gln Thr Asn Val Tyr Thr Thr Thr Tyr Tyr Pro		
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Gln Arg Cys Phe Pro Asn Ser		
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gagctgggct tccgcgtccg caagagaacg tgcactaacc cggagccccg caacgggggc 2820
ctgccctgcg tgggcgatgc tgccgagtag caggactgca acccccaggc ttgccagtt 2880
cgggggtgctt ggtcctgctg gacctcatgg tctccatgct cagcttctc tgggtgggggt 2940
cactatcaac gcacccgttc ctgcaccagc cccgcaccct ccccggtga ggacatctgt 3000
ctcgggctgc acacggagga ggcactatgt gccacacagg cctgcccaga aggtggtcg 3060
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gaggagctcc tcccagggtc cagcgmtgt gctggaaaca gcagccagag ccgcccctgc 3180
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gacctgcttg ggagtctctg ctggcccttc atctgttcag gaacacacac acacacacac 3840
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attattaatt aaagatgata tccagtcaaa aaaaaact 3938

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&lt;210&gt; 34

&lt;211&gt; 1095

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

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Met Val Leu Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu
1          5          10          15

```

```

Thr Leu Leu Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser Glu
20          25          30

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```

Pro Ser Ser Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr Val
35          40          45

```

```

Ala Phe Glu Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly
50          55          60

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Ala Arg Asp Phe Ser Gln Leu Ala Leu Asp Pro Ser Gly Asn Gln Leu  
 65 70 75 80  
 Ile Val Gly Ala Arg Asn Tyr Leu Phe Arg Leu Ser Leu Ala Asn Val  
 85 90 95  
 Ser Leu Leu Gln Ala Thr Glu Trp Ala Ser Ser Glu Asp Thr Arg Arg  
 100 105 110  
 Ser Cys Gln Ser Lys Gly Lys Thr Glu Glu Glu Cys Gln Asn Tyr Val  
 115 120 125  
 Arg Val Leu Ile Val Ala Gly Arg Lys Val Phe Met Cys Gly Thr Asn  
 130 135 140  
 Ala Phe Ser Pro Met Cys Thr Ser Arg Gln Val Gly Asn Leu Ser Arg  
 145 150 155 160  
 Thr Thr Glu Lys Ile Asn Gly Val Ala Arg Cys Pro Tyr Asp Pro Arg  
 165 170 175  
 His Asn Ser Thr Ala Val Ile Ser Ser Gln Gly Glu Leu Tyr Ala Ala  
 180 185 190  
 Thr Val Ile Asp Phe Ser Gly Arg Asp Pro Ala Ile Tyr Arg Ser Leu  
 195 200 205  
 Gly Ser Gly Pro Pro Leu Arg Thr Ala Gln Tyr Asn Ser Lys Trp Leu  
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 Asn Glu Pro Asn Phe Val Ala Ala Tyr Asp Ile Gly Leu Phe Ala Tyr  
 225 230 235 240  
 Phe Phe Leu Arg Glu Asn Ala Val Glu His Asp Cys Gly Arg Thr Val  
 245 250 255  
 Tyr Ser Arg Val Ala Arg Val Cys Lys Asn Asp Val Gly Gly Arg Phe  
 260 265 270  
 Leu Leu Glu Asp Thr Trp Thr Thr Phe Met Lys Ala Arg Leu Asn Cys  
 275 280 285  
 Ser Arg Pro Gly Glu Val Pro Phe Tyr Tyr Asn Glu Leu Gln Ser Ala  
 290 295 300  
 Phe His Leu Pro Glu Gln Asp Leu Ile Tyr Gly Val Phe Thr Thr Asn  
 305 310 315 320  
 Val Asn Ser Ile Ala Ala Ser Ala Val Cys Ala Phe Asn Leu Ser Ala  
 325 330 335  
 Ile Ser Gln Ala Phe Asn Gly Pro Phe Arg Tyr Gln Glu Asn Pro Arg  
 340 345 350  
 Ala Ala Trp Leu Pro Ile Ala Asn Pro Ile Pro Asn Phe Gln Cys Gly  
 355 360 365  
 Thr Leu Pro Glu Thr Gly Pro Asn Glu Asn Leu Thr Glu Arg Ser Leu  
 370 375 380

Gln Asp Ala Gln Arg Leu Phe Leu Met Ser Glu Ala Val Gln Pro Val  
 385 390 395 400  
 Thr Pro Glu Pro Cys Val Thr Gln Asp Ser Val Arg Phe Ser His Leu  
 405 410 415  
 Val Val Asp Leu Val Gln Ala Lys Asp Thr Leu Tyr His Val Leu Tyr  
 420 425 430  
 Ile Gly Thr Glu Ser Gly Thr Ile Leu Lys Ala Leu Ser Thr Ala Ser  
 435 440 445  
 Arg Ser Leu His Gly Cys Tyr Leu Glu Glu Leu His Val Leu Pro Pro  
 450 455 460  
 Gly Arg Arg Glu Pro Leu Arg Ser Leu Arg Ile Leu His Ser Ala Arg  
 465 470 475 480  
 Ala Leu Phe Val Gly Leu Arg Asp Gly Val Leu Arg Val Pro Leu Glu  
 485 490 495  
 Arg Cys Ala Ala Tyr Arg Ser Gln Gly Ala Cys Leu Gly Ala Arg Asp  
 500 505 510  
 Pro Tyr Cys Gly Trp Asp Gly Lys Gln Gln Arg Cys Ser Thr Leu Glu  
 515 520 525  
 Asp Ser Ser Asn Met Ser Leu Trp Thr Gln Asn Ile Thr Ala Cys Pro  
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 Val Arg Asn Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro Trp  
 545 550 555 560  
 Gln Pro Cys Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys  
 565 570 575  
 Arg Ala Arg Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp  
 580 585 590  
 Cys Leu Gly Pro Ala Ile His Ile Ala Asn Cys Ser Arg Asn Gly Gly  
 595 600 605  
 Arg Gly Pro Arg Gly Ala Ser Trp Ala Ala Val Gln Ala Arg Pro Val  
 610 615 620  
 Ala Ser Gly Phe Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala Pro  
 625 630 635 640  
 Arg His Gly Gly Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg Phe  
 645 650 655  
 Cys Asn Glu Asn Thr Pro Cys Pro Val Pro Ile Phe Trp Ala Ser Trp  
 660 665 670  
 Gly Ser Trp Ser Lys Cys Ser Ser Asn Cys Gly Gly Gly Met Gln Ser  
 675 680 685  
 Arg Arg Arg Ala Cys Glu Asn Gly Asn Ser Cys Leu Gly Cys Gly Val  
 690 695 700  
 Glu Phe Lys Thr Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg Asn

705		710		715		720
Thr Pro Trp Thr	Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly Ala					
	725			730		735
Arg Gln Glu Gln Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala Asp						
	740			745		750
Pro His Gly Leu Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr Cys						
	755			760		765
Pro Ala Asp Gly Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu Val						
	770			775		780
Leu Leu Arg Ser Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly Trp						
	785			790		800
Ala Ala Trp Gly Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu Gly						
	805			810		815
Phe Arg Val Arg Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn Gly						
	820			825		830
Gly Leu Pro Cys Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn Pro						
	835			840		845
Gln Ala Cys Pro Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp Ser						
	850			855		860
Pro Cys Ser Ala Ser Cys Gly Gly Gly His Tyr Gln Arg Thr Arg Ser						
	865			870		875
Cys Thr Ser Pro Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu						
	885			890		895
His Thr Glu Glu Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp						
	900			905		910
Ser Pro Trp Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser						
	915			920		925
Arg Ser Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala						
	930			935		940
Gly Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val						
	945			950		955
Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly Phe						
	965			970		975
Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu Gly Ser						
	980			985		990
Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His Cys Gln Arg						
	995			1000		1005
Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr Pro Asn His						
	1010			1015		1020
Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu Lys Tyr Thr						
	1025			1030		1035

Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu Ile Pro Asp  
 1040 1045 1050  
 Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn Val Tyr Thr  
 1055 1060 1065  
 Thr Thr Tyr Tyr Pro Ser Pro Leu Asn Lys His Ser Phe Arg Pro  
 1070 1075 1080  
 Glu Ala Ser Pro Gly Gln Arg Cys Phe Pro Asn Ser  
 1085 1090 1095

<210> 35  
 <211> 1248  
 <212> PRT  
 <213> Homo sapiens

<400> 35  
 Arg Pro Pro His Ser Gln Thr Gly Arg Gln Pro Ile Trp Leu Ala Pro  
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 Ala Ala Pro Arg Arg Pro Gly Val Gly Ser Arg Gly Glu Pro Gly Thr  
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 Cys Thr Arg Leu Trp Glu Pro Ala Trp Val Arg Val Ala Leu Gly Pro  
 35 40 45  
 Ala Arg Ala Val Val Gly Ala Ser Gly Leu Gln Arg Arg Trp Gly Pro  
 50 55 60  
 Gly Thr Gln Ala Trp Arg Arg Arg Arg Thr Ser Glu Ala Glu Gly Arg  
 65 70 75 80  
 Arg Asp Arg Val Ser Gly Ser Ser Trp Cys Leu Ala Cys Val Ser Trp  
 85 90 95  
 Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His Leu Val Pro  
 100 105 110  
 Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly Trp Thr Val  
 115 120 125  
 Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro Cys Leu Pro  
 130 135 140  
 Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu Ala Gly Pro  
 145 150 155 160  
 Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu Val Ser His  
 165 170 175  
 Leu Ser Ser Ser Gln Asp Val Ser Ser Glu Pro Ser Ser Glu Gln Gln  
 180 185 190  
 Leu Cys Ala Leu Ser Lys His Pro Thr Val Ala Phe Glu Asp Leu Gln  
 195 200 205  
 Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp Phe Ser Gln  
 210 215 220

Leu Ala Leu Asp Pro Ser Gly Asn Gln Leu Ile Val Gly Ala Arg Asn  
 225 230 235 240  
 Tyr Leu Phe Arg Leu Ser Leu Ala Asn Val Ser Leu Leu Gln Ala Thr  
 245 250 255  
 Glu Trp Ala Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln Ser Lys Gly  
 260 265 270  
 Lys Thr Glu Glu Glu Cys Gln Asn Tyr Val Arg Val Leu Ile Val Ala  
 275 280 285  
 Gly Arg Lys Val Phe Met Cys Gly Thr Asn Ala Phe Ser Pro Met Cys  
 290 295 300  
 Thr Ser Arg Gln Val Gly Asn Leu Ser Arg Thr Thr Glu Lys Ile Asn  
 305 310 315 320  
 Gly Val Ala Arg Cys Pro Tyr Asp Pro Arg His Asn Ser Thr Ala Val  
 325 330 335  
 Ile Ser Ser Gln Gly Glu Leu Tyr Ala Ala Thr Val Ile Asp Phe Ser  
 340 345 350  
 Gly Arg Asp Pro Ala Ile Tyr Arg Ser Leu Gly Ser Gly Pro Pro Leu  
 355 360 365  
 Arg Thr Ala Gln Tyr Asn Ser Lys Trp Leu Asn Glu Pro Asn Phe Val  
 370 375 380  
 Ala Ala Tyr Asp Ile Gly Leu Phe Ala Tyr Phe Phe Leu Arg Glu Asn  
 385 390 395 400  
 Ala Val Glu His Asp Cys Gly Arg Thr Val Tyr Ser Arg Val Ala Arg  
 405 410 415  
 Val Cys Lys Asn Asp Val Gly Gly Arg Phe Leu Leu Glu Asp Thr Trp  
 420 425 430  
 Thr Thr Phe Met Lys Ala Arg Leu Asn Cys Ser Arg Pro Gly Glu Val  
 435 440 445  
 Pro Phe Tyr Tyr Asn Glu Leu Gln Ser Ala Phe His Leu Pro Glu Gln  
 450 455 460  
 Asp Leu Ile Tyr Gly Val Phe Thr Thr Asn Val Asn Ser Ile Ala Ala  
 465 470 475 480  
 Ser Ala Val Cys Ala Phe Asn Leu Ser Ala Ile Ser Gln Ala Phe Asn  
 485 490 495  
 Gly Pro Phe Arg Tyr Gln Glu Asn Pro Arg Ala Ala Trp Leu Pro Ile  
 500 505 510  
 Ala Asn Pro Ile Pro Asn Phe Gln Cys Gly Thr Leu Pro Glu Thr Gly  
 515 520 525  
 Pro Asn Glu Asn Leu Thr Glu Arg Ser Leu Gln Asp Ala Gln Arg Leu  
 530 535 540

Phe Leu Met Ser Glu Ala Val Gln Pro Val Thr Pro Glu Pro Cys Val  
 545 550 555 560  
 Thr Gln Asp Ser Val Arg Phe Ser His Leu Val Val Asp Leu Val Gln  
 565 570 575  
 Ala Lys Asp Thr Leu Tyr His Val Leu Tyr Ile Gly Thr Glu Ser Gly  
 580 585 590  
 Thr Ile Leu Lys Ala Leu Ser Thr Ala Ser Arg Ser Leu His Gly Cys  
 595 600 605  
 Tyr Leu Glu Glu Leu His Val Leu Pro Pro Gly Arg Arg Glu Pro Leu  
 610 615 620  
 Arg Ser Leu Arg Ile Leu His Ser Ala Arg Ala Leu Phe Val Gly Leu  
 625 630 635 640  
 Arg Asp Gly Val Leu Arg Val Pro Leu Glu Arg Cys Ala Ala Tyr Arg  
 645 650 655  
 Ser Gln Gly Ala Cys Leu Gly Ala Arg Asp Pro Tyr Cys Gly Trp Asp  
 660 665 670  
 Gly Lys Gln Gln Arg Cys Ser Thr Leu Glu Asp Ser Ser Asn Met Ser  
 675 680 685  
 Leu Trp Thr Gln Asn Ile Thr Ala Cys Pro Val Arg Asn Val Thr Arg  
 690 695 700  
 Asp Gly Gly Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys Glu His Leu  
 705 710 715 720  
 Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg Ser Cys Asp  
 725 730 735  
 Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly Pro Ala Ile  
 740 745 750  
 His Ile Ala Asn Cys Ser Arg Asn Gly Ala Val Asp Pro Val Val Ile  
 755 760 765  
 Val Gly Arg Cys Ala Ala Thr Ser Cys Gly Ile Gly Phe Gln Val Arg  
 770 775 780  
 Gln Arg Ser Cys Ser Asn Pro Ala Pro Arg His Gly Gly Arg Ile Cys  
 785 790 795 800  
 Val Gly Lys Ser Arg Glu Glu Arg Phe Cys Asn Glu Asn Thr Pro Cys  
 805 810 815  
 Pro Val Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser Lys Cys Ser  
 820 825 830  
 Ser Asn Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala Cys Glu Asn  
 835 840 845  
 Gly Asn Ser Cys Leu Gly Cys Gly Val Glu Phe Lys Thr Cys Asn Pro  
 850 855 860  
 Glu Gly Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr Pro Trp Leu



865	870	875	880
Pro Val Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln Arg Phe Arg	885	890	895
Phe Thr Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu Gln Phe Gly	900	905	910
Arg Arg Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly Ser Gly Ser	915	920	925
Cys Asp Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser Gly Ser Thr	930	935	940
Ser Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly Pro Trp Ser	945	950	955
Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg Lys Arg Thr	965	970	975
Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys Val Gly Asp	980	985	990
Ala Ala Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys Pro Val Arg Gly	995	1000	1005
Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala Ser Cys	1010	1015	1020
Gly Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro Ala	1025	1030	1035
Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu	1040	1045	1050
Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp	1055	1060	1065
Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser Arg Ser	1070	1075	1080
Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala Gly	1085	1090	1095
Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val	1100	1105	1110
Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly	1115	1120	1125
Phe Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu	1130	1135	1140
Gly Ser Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His	1145	1150	1155
Cys Gln Arg Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr	1160	1165	1170
Pro Asn His Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu	1175	1180	1185

Lys Tyr Thr Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu  
 1190 1195 1200  
 Ile Pro Asp Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn  
 1205 1210 1215  
 Val Tyr Thr Thr Thr Tyr Tyr Pro Ser Pro Leu Asn Lys His Ser  
 1220 1225 1230  
 Phe Arg Pro Glu Ala Ser Pro Gly Gln Arg Cys Phe Pro Asn Ser  
 1235 1240 1245

<210> 36  
 <211> 1150  
 <212> PRT  
 <213> Homo sapiens

<400> 36  
 Ala Ala Ala Pro Phe Pro Asp Arg Pro Pro Ala His Leu Val Ser Ser  
 1 5 10 15  
 Arg Arg Ser Ala Pro Pro Gly Ser Arg Glu Pro Arg Gly Thr Gly His  
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 Leu His Pro Pro Leu Gly Gly Leu Leu Pro Cys Leu Pro Pro Gly Ala  
 35 40 45  
 Arg Thr Ala Glu Gly Pro Ile Met Val Leu Ala Gly Pro Leu Ala Val  
 50 55 60  
 Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu Val Ser His Leu Ser Ser  
 65 70 75 80  
 Ser Gln Asp Val Ser Ser Glu Pro Ser Ser Glu Gln Gln Leu Cys Ala  
 85 90 95  
 Leu Ser Lys His Pro Thr Val Ala Phe Glu Asp Leu Gln Pro Trp Val  
 100 105 110  
 Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp Phe Ser Gln Leu Ala Leu  
 115 120 125  
 Asp Pro Ser Gly Asn Gln Leu Ile Val Gly Ala Arg Asn Tyr Leu Phe  
 130 135 140  
 Arg Leu Ser Leu Ala Asn Val Ser Leu Leu Gln Ala Thr Glu Trp Ala  
 145 150 155 160  
 Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln Ser Lys Gly Lys Thr Glu  
 165 170 175  
 Glu Glu Cys Gln Asn Tyr Val Arg Val Leu Ile Val Ala Gly Arg Lys  
 180 185 190  
 Val Phe Met Cys Gly Thr Asn Ala Phe Ser Pro Met Cys Thr Ser Arg  
 195 200 205  
 Gln Val Gly Asn Leu Ser Arg Thr Thr Glu Lys Ile Asn Gly Val Ala

210					215					220					
Arg	Cys	Pro	Tyr	Asp	Pro	Arg	His	Asn	Ser	Thr	Ala	Val	Ile	Ser	Ser
225					230					235					240
Gln	Gly	Glu	Leu	Tyr	Ala	Ala	Thr	Val	Ile	Asp	Phe	Ser	Gly	Arg	Asp
				245					250					255	
Pro	Ala	Ile	Tyr	Arg	Ser	Leu	Gly	Ser	Gly	Pro	Pro	Leu	Arg	Thr	Ala
			260					265					270		
Gln	Tyr	Asn	Ser	Lys	Trp	Leu	Asn	Glu	Pro	Asn	Phe	Val	Ala	Ala	Tyr
		275					280					285			
Asp	Ile	Gly	Leu	Phe	Ala	Tyr	Phe	Phe	Leu	Arg	Glu	Asn	Ala	Val	Glu
	290					295					300				
His	Asp	Cys	Gly	Arg	Thr	Val	Tyr	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys
305						310					315				320
Asn	Asp	Val	Gly	Gly	Arg	Phe	Leu	Leu	Glu	Asp	Thr	Trp	Thr	Thr	Phe
				325					330						335
Met	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Arg	Pro	Gly	Glu	Val	Pro	Phe	Tyr
			340					345					350		
Tyr	Asn	Glu	Leu	Gln	Ser	Ala	Phe	His	Leu	Pro	Glu	Gln	Asp	Leu	Ile
		355					360					365			
Tyr	Gly	Val	Phe	Thr	Thr	Asn	Val	Asn	Ser	Ile	Ala	Ala	Ser	Ala	Val
	370					375					380				
Cys	Ala	Phe	Asn	Leu	Ser	Ala	Ile	Ser	Gln	Ala	Phe	Asn	Gly	Pro	Phe
385						390					395				400
Arg	Tyr	Gln	Glu	Asn	Pro	Arg	Ala	Ala	Trp	Leu	Pro	Ile	Ala	Asn	Pro
				405					410					415	
Ile	Pro	Asn	Phe	Gln	Cys	Gly	Thr	Leu	Pro	Glu	Thr	Gly	Pro	Asn	Glu
			420					425					430		
Asn	Leu	Thr	Glu	Arg	Ser	Leu	Gln	Asp	Ala	Gln	Arg	Leu	Phe	Leu	Met
		435					440					445			
Ser	Glu	Ala	Val	Gln	Pro	Val	Thr	Pro	Glu	Pro	Cys	Val	Thr	Gln	Asp
	450					455					460				
Ser	Val	Arg	Phe	Ser	His	Leu	Val	Val	Asp	Leu	Val	Gln	Ala	Lys	Asp
465						470					475				480
Thr	Leu	Tyr	His	Val	Leu	Tyr	Ile	Gly	Thr	Glu	Ser	Gly	Thr	Ile	Leu
			485					490						495	
Lys	Ala	Leu	Ser	Thr	Ala	Ser	Arg	Ser	Leu	His	Gly	Cys	Tyr	Leu	Glu
			500					505					510		
Glu	Leu	His	Val	Leu	Pro	Pro	Gly	Arg	Arg	Glu	Pro	Leu	Arg	Ser	Leu
		515					520					525			
Arg	Ile	Leu	His	Ser	Ala	Arg	Ala	Leu	Phe	Val	Gly	Leu	Arg	Asp	Gly
	530					535					540				

Val Leu Arg Val Pro Leu Glu Arg Cys Ala Ala Tyr Arg Ser Gln Gly  
 545 550 555 560  
 Ala Cys Leu Gly Ala Arg Asp Pro Tyr Cys Gly Trp Asp Gly Lys Gln  
 565 570 575  
 Gln Arg Cys Ser Thr Leu Glu Asp Ser Ser Asn Met Ser Leu Trp Thr  
 580 585 590  
 Gln Asn Ile Thr Ala Cys Pro Val Arg Asn Val Thr Arg Asp Gly Gly  
 595 600 605  
 Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys Glu His Leu Asp Gly Asp  
 610 615 620  
 Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg Ser Cys Asp Ser Pro Arg  
 625 630 635 640  
 Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly Pro Ala Ile His Ile Ala  
 645 650 655  
 Asn Cys Ser Arg Asn Gly Ala Val Asp Pro Val Val His Arg Gly Pro  
 660 665 670  
 Leu Cys Ser His Val Leu Trp His Ala Ala Ser Arg Ser Ala Ser Glu  
 675 680 685  
 Val Ala Ala Thr Leu Leu Pro Ala Thr Gly Ala Ala Ser Ala Trp Ala  
 690 695 700  
 Arg Ala Trp Glu Glu Arg Phe Cys Asn Glu Asn Thr Pro Cys Pro Val  
 705 710 715 720  
 Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser Lys Cys Ser Ser Asn  
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 Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala Cys Glu Asn Gly Asn  
 740 745 750  
 Ser Cys Leu Gly Cys Gly Val Glu Phe Lys Thr Cys Asn Pro Glu Gly  
 755 760 765  
 Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr Pro Trp Leu Pro Val  
 770 775 780  
 Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln Arg Phe Arg Phe Thr  
 785 790 795 800  
 Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu Gln Phe Gly Arg Arg  
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 Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly Ser Gly Ser Cys Asp  
 820 825 830  
 Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser Gly Ser Thr Ser Pro  
 835 840 845  
 His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly Pro Trp Ser Ser Cys  
 850 855 860

Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg Lys Arg Thr Cys Thr  
 865 870 875 880  
 Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys Val Gly Asp Ala Ala  
 885 890 895  
 Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys Pro Val Arg Gly Ala Trp  
 900 905 910  
 Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala Ser Cys Gly Gly Gly  
 915 920 925  
 His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro Ala Pro Ser Pro Gly  
 930 935 940  
 Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu Ala Leu Cys Ala Thr  
 945 950 955 960  
 Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp Ser Glu Trp Ser Lys Cys  
 965 970 975  
 Thr Asp Asp Gly Ala Gln Ser Arg Ser Arg His Cys Glu Glu Leu Leu  
 980 985 990  
 Pro Gly Ser Ser Ala Cys Ala Gly Asn Ser Ser Gln Ser Arg Pro Cys  
 995 1000 1005  
 Pro Tyr Ser Glu Ile Arg Val Ile Leu Pro Ala Ser Ser Met Glu  
 1010 1015 1020  
 Glu Ala Thr Asp Cys Ala Gly Phe Asn Leu Ile His Leu Val Ala  
 1025 1030 1035  
 Thr Gly Ile Ser Cys Phe Leu Gly Ser Gly Leu Leu Thr Leu Ala  
 1040 1045 1050  
 Val Tyr Leu Ser Cys Gln His Cys Gln Arg Gln Ser Gln Glu Ser  
 1055 1060 1065  
 Thr Leu Val His Pro Ala Thr Pro Asn His Leu His Tyr Lys Gly  
 1070 1075 1080  
 Gly Gly Thr Pro Lys Asn Glu Lys Tyr Thr Pro Met Glu Phe Lys  
 1085 1090 1095  
 Thr Leu Asn Lys Asn Asn Leu Ile Pro Asp Asp Arg Ala Asn Phe  
 1100 1105 1110  
 Tyr Pro Leu Gln Gln Thr Asn Val Tyr Thr Thr Thr Tyr Tyr Pro  
 1115 1120 1125  
 Ser Pro Leu Asn Lys His Ser Phe Arg Pro Glu Ala Ser Pro Gly  
 1130 1135 1140  
 Gln Arg Cys Phe Pro Asn Ser  
 1145 1150

<210> 37  
 <211> 1211  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 37

Ala Ala Ala Pro Phe Pro Asp Arg Pro Pro Ala His Leu Val Ser Ser  
 1 5 10 15  
 Arg Arg Ser Ala Pro Pro Gly Ser Arg Glu Pro Arg Gly Thr Gly His  
 20 25 30  
 Leu His Pro Pro Leu Gly Val Ser Gly Ser Ser Trp Cys Leu Ala Cys  
 35 40 45  
 Val Ser Trp Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His  
 50 55 60  
 Leu Val Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly  
 65 70 75 80  
 Trp Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro  
 85 90 95  
 Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu  
 100 105 110  
 Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu  
 115 120 125  
 Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser Glu Pro Ser Ser  
 130 135 140  
 Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr Val Ala Phe Glu  
 145 150 155 160  
 Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp  
 165 170 175  
 Phe Ser Gln Leu Ala Leu Asp Pro Ser Gly Asn Gln Leu Ile Val Gly  
 180 185 190  
 Ala Arg Asn Tyr Leu Phe Arg Leu Ser Leu Ala Asn Val Ser Leu Leu  
 195 200 205  
 Gln Ala Thr Glu Trp Ala Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln  
 210 215 220  
 Ser Lys Gly Lys Thr Glu Glu Glu Cys Gln Asn Tyr Val Arg Val Leu  
 225 230 235 240  
 Ile Val Ala Gly Arg Lys Val Phe Met Cys Gly Thr Asn Ala Phe Ser  
 245 250 255  
 Pro Met Cys Thr Ser Arg Gln Val Gly Asn Leu Ser Arg Thr Thr Glu  
 260 265 270  
 Lys Ile Asn Gly Val Ala Arg Cys Pro Tyr Asp Pro Arg His Asn Ser  
 275 280 285  
 Thr Ala Val Ile Ser Ser Gln Gly Glu Leu Tyr Ala Ala Thr Val Ile  
 290 295 300  
 Asp Phe Ser Gly Arg Asp Pro Ala Ile Tyr Arg Ser Leu Gly Ser Gly

305		310		315		320									
Pro	Pro	Leu	Arg	Thr	Ala	Gln	Tyr	Asn	Ser	Lys	Trp	Leu	Asn	Glu	Pro
				325					330					335	
Asn	Phe	Val	Ala	Ala	Tyr	Asp	Ile	Gly	Leu	Phe	Ala	Tyr	Phe	Phe	Leu
			340					345					350		
Arg	Glu	Asn	Ala	Val	Glu	His	Asp	Cys	Gly	Arg	Thr	Val	Tyr	Ser	Arg
		355					360					365			
Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	Val	Gly	Gly	Arg	Phe	Leu	Leu	Glu
	370					375					380				
Asp	Thr	Trp	Thr	Thr	Phe	Met	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Arg	Pro
385					390					395					400
Gly	Glu	Val	Pro	Phe	Tyr	Tyr	Asn	Glu	Leu	Gln	Ser	Ala	Phe	His	Leu
				405					410					415	
Pro	Glu	Gln	Asp	Leu	Ile	Tyr	Gly	Val	Phe	Thr	Thr	Asn	Val	Asn	Ser
			420					425					430		
Ile	Ala	Ala	Ser	Ala	Val	Cys	Ala	Phe	Asn	Leu	Ser	Ala	Ile	Ser	Gln
		435					440					445			
Ala	Phe	Asn	Gly	Pro	Phe	Arg	Tyr	Gln	Glu	Asn	Pro	Arg	Ala	Ala	Trp
	450					455					460				
Leu	Pro	Ile	Ala	Asn	Pro	Ile	Pro	Asn	Phe	Gln	Cys	Gly	Thr	Leu	Pro
465					470					475					480
Glu	Thr	Gly	Pro	Asn	Glu	Asn	Leu	Thr	Glu	Arg	Ser	Leu	Gln	Asp	Ala
				485					490					495	
Gln	Arg	Leu	Phe	Leu	Met	Ser	Glu	Ala	Val	Gln	Pro	Val	Thr	Pro	Glu
			500					505					510		
Pro	Cys	Val	Thr	Gln	Asp	Ser	Val	Arg	Phe	Ser	His	Leu	Val	Val	Asp
		515					520					525			
Leu	Val	Gln	Ala	Lys	Asp	Thr	Leu	Tyr	His	Val	Leu	Tyr	Ile	Gly	Thr
	530					535					540				
Glu	Ser	Gly	Thr	Ile	Leu	Lys	Ala	Leu	Ser	Thr	Ala	Ser	Arg	Ser	Leu
545					550					555					560
His	Gly	Cys	Tyr	Leu	Glu	Glu	Leu	His	Val	Leu	Pro	Pro	Gly	Arg	Arg
				565					570					575	
Glu	Pro	Leu	Arg	Ser	Leu	Arg	Ile	Leu	His	Ser	Ala	Arg	Ala	Leu	Phe
			580					585					590		
Val	Gly	Leu	Arg	Asp	Gly	Val	Leu	Arg	Val	Pro	Leu	Glu	Arg	Cys	Ala
		595					600					605			
Ala	Tyr	Arg	Ser	Gln	Gly	Ala	Cys	Leu	Gly	Ala	Arg	Asp	Pro	Tyr	Cys
	610					615					620				
Gly	Trp	Asp	Gly	Lys	Gln	Gln	Arg	Cys	Ser	Thr	Leu	Glu	Asp	Ser	Ser
625					630					635					640

Asn Met Ser Leu Trp Thr Gln Asn Ile Thr Ala Cys Pro Val Arg Asn  
 645 650 655  
 Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro Trp Gln Pro Cys  
 660 665 670  
 Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg  
 675 680 685  
 Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly  
 690 695 700  
 Pro Ala Ile His Ile Ala Asn Cys Ser Arg Asn Gly Ala Val Asp Pro  
 705 710 715 720  
 Val Val Ile Val Gly Arg Cys Ala Ala Thr Ser Cys Gly Ile Gly Phe  
 725 730 735  
 Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala Pro Arg His Gly Gly  
 740 745 750  
 Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg Phe Cys Asn Glu Asn  
 755 760 765  
 Thr Pro Cys Pro Val Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser  
 770 775 780  
 Lys Cys Ser Ser Asn Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala  
 785 790 795 800  
 Cys Glu Asn Gly Asn Ser Cys Leu Gly Cys Gly Val Glu Phe Lys Thr  
 805 810 815  
 Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr  
 820 825 830  
 Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln  
 835 840 845  
 Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu  
 850 855 860  
 Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly  
 865 870 875 880  
 Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser  
 885 890 895  
 Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly  
 900 905 910  
 Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg  
 915 920 925  
 Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys  
 930 935 940  
 Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys Pro  
 945 950 955 960



Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala  
                             965                            970                            975  
 Ser Cys Gly Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro  
                             980                            985                            990  
 Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu  
                             995                            1000                            1005  
 Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp  
                             1010                            1015                            1020  
 Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser Arg Ser  
                             1025                            1030                            1035  
 Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala Gly  
                             1040                            1045                            1050  
 Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val  
                             1055                            1060                            1065  
 Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly  
                             1070                            1075                            1080  
 Phe Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu  
                             1085                            1090                            1095  
 Gly Ser Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His  
                             1100                            1105                            1110  
 Cys Gln Arg Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr  
                             1115                            1120                            1125  
 Pro Asn His Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu  
                             1130                            1135                            1140  
 Lys Tyr Thr Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu  
                             1145                            1150                            1155  
 Ile Pro Asp Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn  
                             1160                            1165                            1170  
 Ala Ser Ala Gly Tyr Pro Pro Leu Pro Gly Ser Leu Tyr Ser Thr  
                             1175                            1180                            1185  
 Gln Gly Ile Pro Leu Val Arg Gly Ser Glu Tyr Trp Glu Leu Glu  
                             1190                            1195                            1200  
 Ala Asp Leu Cys Leu Glu Val Leu  
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<210> 38  
 <211> 1203  
 <212> PRT  
 <213> Homo sapiens

<400> 38  
 Ala Ala Ala Pro Phe Pro Asp Arg Pro Pro Ala His Leu Val Ser Ser  
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Arg Arg Ser Ala Pro Pro Gly Ser Arg Glu Pro Arg Gly Thr Gly His  
 20 25 30  
 Leu His Pro Pro Leu Gly Val Ser Gly Ser Ser Trp Cys Leu Ala Cys  
 35 40 45  
 Val Ser Trp Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His  
 50 55 60  
 Leu Val Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly  
 65 70 75 80  
 Trp Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Leu Leu Pro  
 85 90 95  
 Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro Ile Met Val Leu  
 100 105 110  
 Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser Leu Thr Leu Leu  
 115 120 125  
 Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser Glu Pro Ser Ser  
 130 135 140  
 Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr Val Ala Phe Glu  
 145 150 155 160  
 Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro Gly Ala Arg Asp  
 165 170 175  
 Phe Ser Gln Leu Ala Leu Asp Pro Ser Gly Asn Gln Leu Ile Val Gly  
 180 185 190  
 Ala Arg Asn Tyr Leu Phe Arg Leu Ser Leu Ala Asn Val Ser Leu Leu  
 195 200 205  
 Gln Ala Thr Glu Trp Ala Ser Ser Glu Asp Thr Arg Arg Ser Cys Gln  
 210 215 220  
 Ser Lys Gly Lys Thr Glu Glu Glu Cys Gln Asn Tyr Val Arg Val Leu  
 225 230 235 240  
 Ile Val Ala Gly Arg Lys Val Phe Met Cys Gly Thr Asn Ala Phe Ser  
 245 250 255  
 Pro Met Cys Thr Ser Arg Gln Val Gly Asn Leu Ser Arg Thr Thr Glu  
 260 265 270  
 Lys Ile Asn Gly Val Ala Arg Cys Pro Tyr Asp Pro Arg His Asn Ser  
 275 280 285  
 Thr Ala Val Ile Ser Ser Gln Gly Glu Leu Tyr Ala Ala Thr Val Ile  
 290 295 300  
 Asp Phe Ser Gly Arg Asp Pro Ala Ile Tyr Arg Ser Leu Gly Ser Gly  
 305 310 315 320  
 Pro Pro Leu Arg Thr Ala Gln Tyr Asn Ser Lys Trp Leu Asn Glu Pro  
 325 330 335  
 Asn Phe Val Ala Ala Tyr Asp Ile Gly Leu Phe Ala Tyr Phe Phe Leu

340					345					350						
Arg	Glu	Asn	Ala	Val	Glu	His	Asp	Cys	Gly	Arg	Thr	Val	Tyr	Ser	Arg	
355					360					365						
Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	Val	Gly	Gly	Arg	Phe	Leu	Leu	Glu	
370					375					380						
Asp	Thr	Trp	Thr	Thr	Phe	Met	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Arg	Pro	
385					390					395					400	
Gly	Glu	Val	Pro	Phe	Tyr	Tyr	Asn	Glu	Leu	Gln	Ser	Ala	Phe	His	Leu	
					405					410					415	
Pro	Glu	Gln	Asp	Leu	Ile	Tyr	Gly	Val	Phe	Thr	Thr	Asn	Val	Asn	Ser	
					420					425					430	
Ile	Ala	Ala	Ser	Ala	Val	Cys	Ala	Phe	Asn	Leu	Ser	Ala	Ile	Ser	Gln	
					435					440					445	
Ala	Phe	Asn	Gly	Pro	Phe	Arg	Tyr	Gln	Glu	Asn	Pro	Arg	Ala	Ala	Trp	
					450					455					460	
Leu	Pro	Ile	Ala	Asn	Pro	Ile	Pro	Asn	Phe	Gln	Cys	Gly	Thr	Leu	Pro	
465					470					475					480	
Glu	Thr	Gly	Pro	Asn	Glu	Asn	Leu	Thr	Glu	Arg	Ser	Leu	Gln	Asp	Ala	
					485					490					495	
Gln	Arg	Leu	Phe	Leu	Met	Ser	Glu	Ala	Val	Gln	Pro	Val	Thr	Pro	Glu	
					500					505					510	
Pro	Cys	Val	Thr	Gln	Asp	Ser	Val	Arg	Phe	Ser	His	Leu	Val	Val	Asp	
					515					520					525	
Leu	Val	Gln	Ala	Lys	Asp	Thr	Leu	Tyr	His	Val	Leu	Tyr	Ile	Gly	Thr	
530					535					540						
Glu	Ser	Gly	Thr	Ile	Leu	Lys	Ala	Leu	Ser	Thr	Ala	Ser	Arg	Ser	Leu	
545					550					555					560	
His	Gly	Cys	Tyr	Leu	Glu	Glu	Leu	His	Val	Leu	Pro	Pro	Gly	Arg	Arg	
					565					570					575	
Glu	Pro	Leu	Arg	Ser	Leu	Arg	Ile	Leu	His	Ser	Ala	Arg	Ala	Leu	Phe	
					580					585					590	
Val	Gly	Leu	Arg	Asp	Gly	Val	Leu	Arg	Val	Pro	Leu	Glu	Arg	Cys	Ala	
595					600					605						
Ala	Tyr	Arg	Ser	Gln	Gly	Ala	Cys	Leu	Gly	Ala	Arg	Asp	Pro	Tyr	Cys	
610					615					620						
Gly	Trp	Asp	Gly	Lys	Gln	Gln	Arg	Cys	Ser	Thr	Leu	Glu	Asp	Ser	Ser	
625					630					635					640	
Asn	Met	Ser	Leu	Trp	Thr	Gln	Asn	Ile	Thr	Ala	Cys	Pro	Val	Arg	Asn	
					645					650					655	
Val	Thr	Arg	Asp	Gly	Gly	Phe	Gly	Pro	Trp	Ser	Pro	Trp	Gln	Pro	Cys	
					660					665					670	

Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu Cys Arg Ala Arg  
 675 680 685  
 Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu Asp Cys Leu Gly  
 690 695 700  
 Pro Ala Ile His Ile Ala Asn Cys Ser Arg Asn Gly Ala Val Asp Pro  
 705 710 715 720  
 Val Val Ile Val Gly Arg Cys Ala Ala Thr Ser Cys Gly Ile Gly Phe  
 725 730 735  
 Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala Pro Arg His Gly Gly  
 740 745 750  
 Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg Phe Cys Asn Glu Asn  
 755 760 765  
 Thr Pro Cys Pro Val Pro Ile Phe Trp Ala Ser Trp Gly Ser Trp Ser  
 770 775 780  
 Lys Cys Ser Ser Asn Cys Gly Gly Gly Met Gln Ser Arg Arg Arg Ala  
 785 790 795 800  
 Cys Glu Asn Gly Asn Ser Cys Leu Gly Cys Gly Val Glu Phe Lys Thr  
 805 810 815  
 Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg Asn Thr Pro Trp Thr  
 820 825 830  
 Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly Ala Arg Gln Glu Gln  
 835 840 845  
 Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala Asp Pro His Gly Leu  
 850 855 860  
 Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr Cys Pro Ala Asp Gly  
 865 870 875 880  
 Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu Val Leu Leu Arg Ser  
 885 890 895  
 Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp Gly  
 900 905 910  
 Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val Arg  
 915 920 925  
 Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro Cys  
 930 935 940  
 Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys Pro  
 945 950 955 960  
 Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser Ala  
 965 970 975  
 Ser Cys Gly Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser Pro  
 980 985 990

Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu Glu  
 995 1000 1005

Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser Pro Trp  
 1010 1015 1020

Ser Glu Trp Ser Lys Cys Thr Asp Asp Gly Ala Gln Ser Arg Ser  
 1025 1030 1035

Arg His Cys Glu Glu Leu Leu Pro Gly Ser Ser Ala Cys Ala Gly  
 1040 1045 1050

Asn Ser Ser Gln Ser Arg Pro Cys Pro Tyr Ser Glu Ile Arg Val  
 1055 1060 1065

Ile Leu Pro Ala Ser Ser Met Glu Glu Ala Thr Asp Cys Ala Gly  
 1070 1075 1080

Phe Asn Leu Ile His Leu Val Ala Thr Gly Ile Ser Cys Phe Leu  
 1085 1090 1095

Gly Ser Gly Leu Leu Thr Leu Ala Val Tyr Leu Ser Cys Gln His  
 1100 1105 1110

Cys Gln Arg Gln Ser Gln Glu Ser Thr Leu Val His Pro Ala Thr  
 1115 1120 1125

Pro Asn His Leu His Tyr Lys Gly Gly Gly Thr Pro Lys Asn Glu  
 1130 1135 1140

Lys Tyr Thr Pro Met Glu Phe Lys Thr Leu Asn Lys Asn Asn Leu  
 1145 1150 1155

Ile Pro Asp Asp Arg Ala Asn Phe Tyr Pro Leu Gln Gln Thr Asn  
 1160 1165 1170

Val Tyr Thr Thr Thr Tyr Tyr Pro Ser Pro Leu Asn Lys His Ser  
 1175 1180 1185

Phe Arg Pro Glu Ala Ser Pro Gly Gln Arg Cys Phe Pro Asn Ser  
 1190 1195 1200

<210> 39  
 <211> 1240  
 <212> PRT  
 <213> Homo sapiens

<400> 39  
 Ala Ala Ala Pro Phe Pro Asp Arg Pro Pro Ala His Leu Val Ser Ser  
 1 5 10 15

Arg Arg Ser Ala Pro Pro Gly Ser Arg Glu Pro Arg Gly Thr Glu His  
 20 25 30

Leu His Pro Pro Leu Gly Val Ser Gly Ser Ser Trp Cys Leu Ala Cys  
 35 40 45

Val Ser Trp Met Pro Cys Gly Phe Ser Pro Ser Pro Val Ala His His  
 50 55 60

Leu Val Pro Gly Pro Pro Asp Thr Pro Ala Gln Gln Leu Arg Cys Gly  
 65 70 75 80  
 Trp Thr Val Gly Gly Trp Leu Leu Ser Leu Val Arg Gly Arg Lys Pro  
 85 90 95  
 Ser Gly Asp Phe Glu Trp Arg Gln Gly Trp Arg Gly Pro Gly Glu Glu  
 100 105 110  
 Asp Trp Pro Glu Ser Pro Ser Pro Lys Val Leu Met Asp Ser Ala Gly  
 115 120 125  
 Gly Leu Leu Pro Cys Leu Pro Pro Gly Ala Arg Thr Ala Glu Gly Pro  
 130 135 140  
 Ile Met Val Leu Ala Gly Pro Leu Ala Val Ser Leu Leu Leu Pro Ser  
 145 150 155 160  
 Leu Thr Leu Leu Val Ser His Leu Ser Ser Ser Gln Asp Val Ser Ser  
 165 170 175  
 Glu Pro Ser Ser Glu Gln Gln Leu Cys Ala Leu Ser Lys His Pro Thr  
 180 185 190  
 Val Ala Phe Glu Asp Leu Gln Pro Trp Val Ser Asn Phe Thr Tyr Pro  
 195 200 205  
 Gly Ala Arg Asp Phe Ser Gln Leu Ala Leu Asp Pro Ser Gly Asn Gln  
 210 215 220  
 Leu Ile Val Gly Ala Arg Asn Tyr Leu Phe Arg Leu Ser Leu Ala Asn  
 225 230 235 240  
 Val Ser Leu Leu Gln Ala Thr Glu Trp Ala Ser Ser Glu Asp Thr Arg  
 245 250 255  
 Arg Ser Cys Gln Ser Lys Gly Lys Thr Glu Glu Glu Cys Gln Asn Tyr  
 260 265 270  
 Val Arg Val Leu Ile Val Ala Gly Arg Lys Val Phe Met Cys Gly Thr  
 275 280 285  
 Asn Ala Phe Ser Pro Met Cys Thr Ser Arg Gln Val Gly Asn Leu Ser  
 290 295 300  
 Arg Thr Thr Glu Lys Ile Asn Gly Val Ala Arg Cys Pro Tyr Asp Pro  
 305 310 315 320  
 Arg His Asn Ser Thr Ala Val Ile Ser Ser Gln Gly Glu Leu Tyr Ala  
 325 330 335  
 Ala Thr Val Ile Asp Phe Ser Gly Arg Asp Pro Ala Ile Tyr Arg Ser  
 340 345 350  
 Leu Gly Ser Gly Pro Pro Leu Arg Thr Ala Gln Tyr Asn Ser Lys Trp  
 355 360 365  
 Leu Asn Glu Pro Asn Phe Val Ala Ala Tyr Asp Ile Gly Leu Phe Ala  
 370 375 380  
 Tyr Phe Phe Leu Arg Glu Asn Ala Val Glu His Asp Cys Gly Arg Thr

385		390		395		400
Val Tyr Ser Arg	Val Ala Arg Val Cys Lys Asn Asp Val Gly Gly Arg					
	405			410		415
Phe Leu Leu Glu Asp Thr Trp Thr Thr Phe Met Lys Ala Arg Leu Asn						
	420			425		430
Cys Ser Arg Pro Gly Glu Val Pro Phe Tyr Tyr Asn Glu Leu Gln Ser						
	435			440		445
Ala Phe His Leu Pro Glu Gln Asp Leu Ile Tyr Gly Val Phe Thr Thr						
	450			455		460
Asn Val Asn Ser Ile Ala Ala Ser Ala Val Cys Ala Phe Asn Leu Ser						
	465			470		475
Ala Ile Ser Gln Ala Phe Asn Gly Pro Phe Arg Tyr Gln Glu Asn Pro						
	485			490		495
Arg Ala Ala Trp Leu Pro Ile Ala Asn Pro Ile Pro Asn Phe Gln Cys						
	500			505		510
Gly Thr Leu Pro Glu Thr Gly Pro Asn Glu Asn Leu Thr Glu Arg Ser						
	515			520		525
Leu Gln Asp Ala Gln Arg Leu Phe Leu Met Ser Glu Ala Val Gln Pro						
	530			535		540
Val Thr Pro Glu Pro Cys Val Thr Gln Asp Ser Val Arg Phe Ser His						
	545			550		555
Leu Val Val Asp Leu Val Gln Ala Lys Asp Thr Leu Tyr His Val Leu						
	565			570		575
Tyr Ile Gly Thr Glu Ser Gly Thr Ile Leu Lys Ala Leu Ser Thr Ala						
	580			585		590
Ser Arg Ser Leu His Gly Cys Tyr Leu Glu Glu Leu His Val Leu Pro						
	595			600		605
Pro Gly Arg Arg Glu Pro Leu Arg Ser Leu Arg Ile Leu His Ser Ala						
	610			615		620
Arg Ala Leu Phe Val Gly Leu Arg Asp Gly Val Leu Arg Val Pro Leu						
	625			630		635
Glu Arg Cys Ala Ala Tyr Arg Ser Gln Gly Ala Cys Leu Gly Ala Arg						
	645			650		655
Asp Pro Tyr Cys Gly Trp Asp Gly Lys Gln Gln Arg Cys Ser Thr Leu						
	660			665		670
Glu Asp Ser Ser Asn Met Ser Leu Trp Thr Gln Asn Ile Thr Ala Cys						
	675			680		685
Pro Val Arg Asn Val Thr Arg Asp Gly Gly Phe Gly Pro Trp Ser Pro						
	690			695		700
Trp Gln Pro Cys Glu His Leu Asp Gly Asp Asn Ser Gly Ser Cys Leu						
	705			710		715
						720

Cys Arg Ala Arg Ser Cys Asp Ser Pro Arg Pro Arg Cys Gly Gly Leu  
 725 730 735  
 Asp Cys Leu Gly Pro Ala Ile His Ile Ala Asn Cys Ser Arg Asn Gly  
 740 745 750  
 Gly Arg Gly Pro Arg Gly Ala Ser Trp Ala Ala Val Gln Ala Arg Pro  
 755 760 765  
 Val Ala Ser Gly Phe Gln Val Arg Gln Arg Ser Cys Ser Asn Pro Ala  
 770 775 780  
 Pro Arg His Gly Gly Arg Ile Cys Val Gly Lys Ser Arg Glu Glu Arg  
 785 790 795 800  
 Phe Cys Asn Glu Asn Thr Pro Cys Pro Val Pro Ile Phe Trp Ala Ser  
 805 810 815  
 Trp Gly Ser Trp Ser Lys Cys Ser Ser Asn Cys Gly Gly Gly Met Gln  
 820 825 830  
 Ser Arg Arg Arg Ala Cys Glu Asn Gly Asn Ser Cys Leu Gly Cys Gly  
 835 840 845  
 Val Glu Phe Lys Thr Cys Asn Pro Glu Gly Cys Pro Glu Val Arg Arg  
 850 855 860  
 Asn Thr Pro Trp Thr Pro Trp Leu Pro Val Asn Val Thr Gln Gly Gly  
 865 870 875 880  
 Ala Arg Gln Glu Gln Arg Phe Arg Phe Thr Cys Arg Ala Pro Leu Ala  
 885 890 895  
 Asp Pro His Gly Leu Gln Phe Gly Arg Arg Arg Thr Glu Thr Arg Thr  
 900 905 910  
 Cys Pro Ala Asp Gly Ser Gly Ser Cys Asp Thr Asp Ala Leu Val Glu  
 915 920 925  
 Val Leu Leu Arg Ser Gly Ser Thr Ser Pro His Thr Val Ser Gly Gly  
 930 935 940  
 Trp Ala Ala Trp Gly Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu  
 945 950 955 960  
 Gly Phe Arg Val Arg Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn  
 965 970 975  
 Gly Gly Leu Pro Cys Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn  
 980 985 990  
 Pro Gln Ala Cys Pro Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp  
 995 1000 1005  
 Ser Pro Cys Ser Ala Ser Cys Gly Gly Gly His Tyr Gln Arg Thr  
 1010 1015 1020  
 Arg Ser Cys Thr Ser Pro Ala Pro Ser Pro Gly Glu Asp Ile Cys  
 1025 1030 1035



Leu Gly 1040	Leu His Thr Glu 1045	Glu Ala Leu Cys Ala Thr 1050	Gln Ala Cys
Pro Glu 1055	Gly Trp Ser Pro Trp 1060	Ser Glu Trp Ser Lys 1065	Cys Thr Asp
Asp Gly 1070	Ala Gln Ser Arg Ser 1075	Arg His Cys Glu Glu 1080	Leu Leu Pro
Gly Ser 1085	Ser Ala Cys Ala Gly 1090	Asn Ser Ser Gln Ser 1095	Arg Pro Cys
Pro Tyr 1100	Ser Glu Ile Arg Val 1105	Ile Leu Pro Ala Ser 1110	Ser Met Glu
Glu Ala 1115	Thr Asp Cys Ala Gly 1120	Phe Asn Leu Ile His 1125	Leu Val Ala
Thr Gly 1130	Ile Ser Cys Phe Leu 1135	Gly Ser Gly Leu Leu 1140	Thr Leu Ala
Val Tyr 1145	Leu Ser Cys Gln His 1150	Cys Gln Arg Gln Ser 1155	Gln Glu Ser
Thr Leu 1160	Val His Pro Ala Thr 1165	Pro Asn His Leu His 1170	Tyr Lys Gly
Gly Gly 1175	Thr Pro Lys Asn Glu 1180	Lys Tyr Thr Pro Met 1185	Glu Phe Lys
Thr Leu 1190	Asn Lys Asn Asn Leu 1195	Ile Pro Asp Asp Arg 1200	Ala Asn Phe
Tyr Pro 1205	Leu Gln Gln Thr Asn 1210	Val Tyr Thr Thr Thr 1215	Tyr Tyr Pro
Ser Pro 1220	Leu Asn Lys His Ser 1225	Phe Arg Pro Glu Ala 1230	Ser Pro Gly
Gln Arg 1235	Cys Phe Pro Asn Ser 1240		

